

# Project Report

DESIGNER	CLIENT
GOWN Engineers	Now Construction
CONTRACTOR	INSTALLER
Symbiotic Solutions	Symbiotic Solutions

## Requirement

The Wealden Business Centre in Crowborough required the construction of a gabion basket retaining wall as part of a wider ground stabilisation solution. To ensure long-term structural stability, the design—produced by GOWN Engineers—specified the use of a ground anchoring system to reinforce the gabion wall and provide additional resistance against potential soil movement.

The Vulcan Earth Anchor system was chosen by Anchor Systems International for its proven performance in similar retaining wall applications. The AS-20 anchors, paired with 16mm galvanised steel bars and galvanised load plates, were selected to deliver the required design load capacity while maintaining ease of installation on an already partially completed structure.

## Testing

Before installation, suitability testing was carried out to verify that the anchors could penetrate the underlying weathered mudstone identified in the site’s ground investigation report. The testing confirmed that the anchors achieved excellent load performance, with high load capacities recorded during trials.

Following the successful suitability tests, each anchor underwent proof loading as part of the installation process to validate their performance and ensure compliance with the design requirement of 30kN SLS (Serviceability Limit State). The results demonstrated consistent and reliable performance across all installed anchors.

## Solution

Installation took place over two days, with a total of 14 Vulcan Earth Anchors installed through the pre-constructed gabion baskets. To facilitate installation, the baskets were designed with ducts to allow the anchors to be driven through efficiently.

The anchors were installed using a small excavator, allowing for precise placement even within the confined workspace.

Despite the limited access and the challenges of working with an existing gabion structure, the Anchor Systems solution provided a straightforward and effective method of reinforcement without requiring any bespoke or non-standard components.

The completed system delivered a durable and efficient retaining wall anchoring solution, reinforcing the gabion structure and ensuring long-term ground stability for the Wealden Business Centre site.

# Retaining Gabion Wall

## Wealden Business Centre

